



Dart Aerospace Ltd.
1270 Aberdeen St
Hawkesbury, ON
K6A 1K7
Canada

Tel (613) 632-5200

C10-27-8
Job Sheet 179910



Part No: C10-27-8

Job Qty: 4 ea

DAS
21
9-89

Part Name: Bumper Plate



Part Weight: 0 lbs

Status: At Planning

Priority: Medium

Job Created: 6/26/18

Job Tracking No:

Due Date: 7/20/18

Created By: Marie Lajeunesse

Type: SOLD

Description:

Note: DWG C10-27-8 Rev 2 IPP REV A RQ 17.09.01 VERIFIED BY DD

Ship Via:

Bill of Materials

Job Routing

Op No	Operation	Qty	Start Date	Due Date	Standard		Workcenter/Supplier		Sign-off
					Setup hrs	Run Hrs	Workcenter / Supplier	Lead Time	
90	Start up Operation	4 Ea	7/20/18	7/20/18	0.00	0.00	Start Up Waterjet		on 18/06/2018
110	Waterjet	4 pcs	7/20/18	7/20/18	0.00	0.40	Waterjet 2 OMAX		on 18/06/2018
120	QC	4 pcs	7/20/18	7/20/18	0.00	0.00	QC2 Waterjet-1		on 18/06/2018
170	QC	4 pcs	7/20/18	7/20/18	0.00	0.00	QC8-1		38
220	Packaging	4 pcs	7/20/18	7/20/18	0.00	0.00	Packaging3		DAS 9-89
230	QC21-SA	4 Ea	7/20/18	7/20/18	0.00	0.00	QC21		21 9-89 JUL 12 2018

Part Op 110 - 1-Cut as per DWG. DWG. Rev: 2 PROG. Rev: 2 2-Deburr if necessary
Descriptions:

Job BOM

Part / Item	Component Name	Quantity	Operation	Container
MT-HRS-P-0.375	Hot Rolled Steel Plate 0.375" (44W)	4 sf (1 ea)	90-Start up Operation	

Job Allocations

Operation	Component Part	Required	Inventory	Allocated
90-Start up Operation	MT-HRS-P-0.375	4	32	0

Part Specifications

Specifications could not be found.

Plex 6/26/18 8:18 AM Dart.lajeunesse.marie

DQA: _____ Date: _____

WORK ORDER NON-CONFORMANCE / UPDATE



QA Closed: _____ Date: _____

Work Order update only ☐

Work Order: _____ Part No. _____ NCR No. _____		DISPOSITION Rework ☐ Scrap ☐ Use-as-is ☐ Suspected Unapproved ☐		AGAINST DEPARTMENT/PROCESS Skid-tube ☐ Machining ☐ Thermoform ☐ Cross tube ☐ Serial No/ Batch: S084735 Part: C10-27-8 Revision: 2 Inspector: _____ Exp Date: _____ Instructions: _____ Water Jet ☐ Eng. Coord. ☐ /Packaging ☐ Supplier ☐ Engineering ☐ Quality ☐ Other ☐																																																																					
Date: _____		Step #: _____		DART Aerospace Ltd. 1270 Aberdeen Street, Hawkesbury, ON K6A 1K7 CANADA TEL: 613 632-5200 Email: dart@aerospace.com www.dartaerospace.com																																																																					
Description V																																																																									
Root Cause <table style="width: 100%; border-collapse: collapse;"> <tr> <td style="width: 33%;">Environment ☐</td> <td style="width: 33%;">No Re-verification ☐</td> <td style="width: 33%;"></td> </tr> <tr> <td>Design ☐</td> <td>Operator ☐</td> <td></td> </tr> <tr> <td>Doc/Data ☐</td> <td>Offset/Setup ☐</td> <td></td> </tr> <tr> <td>Equip/Tooling ☐</td> <td>Supplier ☐</td> <td></td> </tr> <tr> <td>Handling/Pre ☐</td> <td>Training ☐</td> <td></td> </tr> <tr> <td>Material ☐</td> <td>Use for Testing ☐</td> <td></td> </tr> <tr> <td>Internal Transport ☐</td> <td>Poor Information ☐</td> <td></td> </tr> <tr> <td>Tribal Knowledge ☐</td> <td>Rushing ☐</td> <td></td> </tr> <tr> <td>LOA ☐</td> <td>Product Improvement ☐</td> <td></td> </tr> <tr> <td>Substation ☐</td> <td>Process Improvement ☐</td> <td></td> </tr> <tr> <td>Past Expiry Date ☐</td> <td>Manufacturing Process ☐</td> <td></td> </tr> <tr> <td>Misidentified ☐</td> <td>Past Due ☐</td> <td></td> </tr> </table>				Environment ☐	No Re-verification ☐		Design ☐	Operator ☐		Doc/Data ☐	Offset/Setup ☐		Equip/Tooling ☐	Supplier ☐		Handling/Pre ☐	Training ☐		Material ☐	Use for Testing ☐		Internal Transport ☐	Poor Information ☐		Tribal Knowledge ☐	Rushing ☐		LOA ☐	Product Improvement ☐		Substation ☐	Process Improvement ☐		Past Expiry Date ☐	Manufacturing Process ☐		Misidentified ☐	Past Due ☐		<table style="width: 100%; border-collapse: collapse;"> <tr> <td style="width: 33%;">Broken/Damage/Defect ☐</td> <td style="width: 33%;">Power Loss/Surge ☐</td> <td style="width: 33%;">Positioned Wrong ☐</td> </tr> <tr> <td>Inspection Incomplete/Unqualified ☐</td> <td>Folio/Program ☐</td> <td>Outside Dimensions ☐</td> </tr> <tr> <td>Contamination ☐</td> <td>Grain ☐</td> <td>Over/Under tolerance ☐</td> </tr> <tr> <td>Countersink ☐</td> <td>Weld ☐</td> <td>Part Incorrect ☐</td> </tr> <tr> <td>Cut Too Short ☐</td> <td>Wrong Stock Pulled ☐</td> <td>Part Lost/Missing ☐</td> </tr> <tr> <td>Instructions Incomplete/Unclear ☐</td> <td>Out of Sequence ☐</td> <td>Part Moved ☐</td> </tr> <tr> <td>Drill Holes ☐</td> <td>Off-set ☐</td> <td>Drawing ☐</td> </tr> <tr> <td></td> <td>Mislabeled ☐</td> <td>Finish ☐</td> </tr> <tr> <td></td> <td>Fit/Function ☐</td> <td>Misread ☐</td> </tr> <tr> <td></td> <td>Misaligned/off center ☐</td> <td>Turning Sequence ☐</td> </tr> </table>				Broken/Damage/Defect ☐	Power Loss/Surge ☐	Positioned Wrong ☐	Inspection Incomplete/Unqualified ☐	Folio/Program ☐	Outside Dimensions ☐	Contamination ☐	Grain ☐	Over/Under tolerance ☐	Countersink ☐	Weld ☐	Part Incorrect ☐	Cut Too Short ☐	Wrong Stock Pulled ☐	Part Lost/Missing ☐	Instructions Incomplete/Unclear ☐	Out of Sequence ☐	Part Moved ☐	Drill Holes ☐	Off-set ☐	Drawing ☐		Mislabeled ☐	Finish ☐		Fit/Function ☐	Misread ☐		Misaligned/off center ☐	Turning Sequence ☐
Environment ☐	No Re-verification ☐																																																																								
Design ☐	Operator ☐																																																																								
Doc/Data ☐	Offset/Setup ☐																																																																								
Equip/Tooling ☐	Supplier ☐																																																																								
Handling/Pre ☐	Training ☐																																																																								
Material ☐	Use for Testing ☐																																																																								
Internal Transport ☐	Poor Information ☐																																																																								
Tribal Knowledge ☐	Rushing ☐																																																																								
LOA ☐	Product Improvement ☐																																																																								
Substation ☐	Process Improvement ☐																																																																								
Past Expiry Date ☐	Manufacturing Process ☐																																																																								
Misidentified ☐	Past Due ☐																																																																								
Broken/Damage/Defect ☐	Power Loss/Surge ☐	Positioned Wrong ☐																																																																							
Inspection Incomplete/Unqualified ☐	Folio/Program ☐	Outside Dimensions ☐																																																																							
Contamination ☐	Grain ☐	Over/Under tolerance ☐																																																																							
Countersink ☐	Weld ☐	Part Incorrect ☐																																																																							
Cut Too Short ☐	Wrong Stock Pulled ☐	Part Lost/Missing ☐																																																																							
Instructions Incomplete/Unclear ☐	Out of Sequence ☐	Part Moved ☐																																																																							
Drill Holes ☐	Off-set ☐	Drawing ☐																																																																							
	Mislabeled ☐	Finish ☐																																																																							
	Fit/Function ☐	Misread ☐																																																																							
	Misaligned/off center ☐	Turning Sequence ☐																																																																							
OTHER : _____																																																																									

DQA: _____ Date: _____



WORK ORDER NON-CONFORMANCE / UPDATE

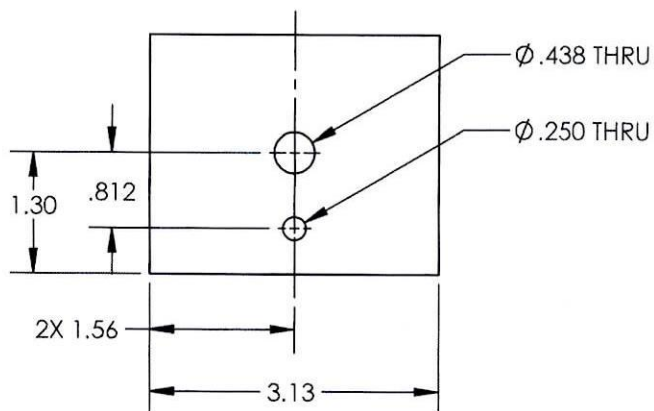
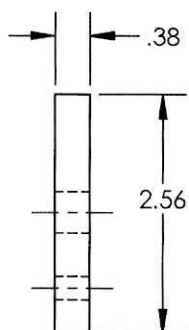
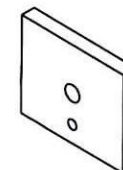
QA Closed: _____ Date: _____

Work Order update only ☐

Work Order: _____ Part No. _____ NCR No. _____	DISPOSITION Rework ☐ Scrap ☐ Use-as-is ☐ Suspected Unapproved ☐	AGAINST DEPARTMENT/PROCESS Skid-tube ☐ Machining ☐ Thermoforming ☐ Large Fab ☐ Cross tube ☐ Small Fab ☐ Finishing ☐ Composite ☐ Water Jet ☐ Prod. Eng. Coord. ☐ Rec/Store/Packaging ☐ Supplier ☐ Engineering ☐ Quality ☐ Other ☐			
Date :	Step #:	QTY Effective :		MRB (QSI042) Approval	
Description Work Order Deviation			Disposition		
			Completed By		
			Lead hand / Supervisor Approval Verification		
			QC / QA Coordinator Approval		
Root Cause Environment ☐ Design ☐ Doc/Data ☐ Equip/Tooling ☐ Handling/Pre ☐ Material ☐ Internal Transport ☐ Tribal Knowledge ☐ LOA ☐ Substation ☐ Past Expiry Date ☐ Misidentified ☐ No Re-verification ☐ Operator ☐ Offset/Setup ☐ Supplier ☐ Training ☐ Use for Testing ☐ Poor Information ☐ Rushing ☐ Product Improvement ☐ Process Improvement ☐ Manufacturing Process ☐ Past Due ☐			FAULT CATEGORY Pressure/Forced ☐ Bending ☐ Centre Not Concentric ☐ Cracks ☐ Crimp/Kink/Ripple/Wave ☐ Cuffs ☐ Crushing ☐ Heat Treat ☐ Wave/Twist in Tube ☐ Marks/Chatter ☐ Temperature/Cure ☐ Set-up ☐ BOM/Route ☐ Broken/Damage/Defect ☐ Inspection Incomplete/Unqualified ☐ Contamination ☐ Countersink ☐ Cut Too Short ☐ Instructions Incomplete/Unclear ☐ Drill Holes ☐ Power Loss/Surge ☐ Folio/Program ☐ Grain ☐ Weld ☐ Wrong Stock Pulled ☐ Out of Sequence ☐ Off-set ☐ Misabeled ☐ Fit/Function ☐ Misaligned/off center ☐ Positioned Wrong ☐ Outside Dimensions ☐ Over/Under tolerance ☐ Part Incorrect ☐ Part Lost/Missing ☐ Part Moved ☐ Drawing ☐ Finish ☐ Misread ☐ Turning Sequence ☐		
OTHER : ☐					

This drawing, specifications, and concepts contained here in are the sole property of Dart Aerospace, and may not be reproduced or used in any fashion without the prior written permission of Dart Aerospace Eugene, OR.

REVISIONS				
REV	ECR	DESCRIPTION	DATE	INITIAL
2	16-0165	CHD DIM WAS 1.56 IS 2X 1.56, WAS [.375] IS .38; CHD MATERIAL WAS HR P&O IS A36/1018/1020 HR.	10/12/2016	RJC
				JAG



SHOP COPY
RETURN TO
ENGINEERING
UNCONTROLLED COPY
SUBJECT TO AMENDMENT
WITHOUT NOTICE

WORK ORDER

NO. 179910 M15
18-06-CP

DART AEROSPACE	
TITLE BUMPER PLATE	
DWG NO. C10-27-8	REV 2
MAT'L A36/1018/1020 HR HEAT TREAT FINISH SPEC	
UNLESS OTHERWISE SPECIFIED DIMENSIONS ARE IN INCHES .XXX ± .005 FRACTIONS ± 1/8 .XX ± .01 ANGLES ± 5° .X ± .1 SURFACES = 125/	
1. BREAK ALL SHARP EDGES .015 x 45° OR .015R 2. DIMENSIONAL LIMITS APPLY AFTER PLATING 3. INTERPRET DIM AND TOL PER ASME Y14.5M-2009	
DRAWN BY: APICAL	USED ON MODEL
CHECKED: DUERFELDT	
OPPS APPR: ANDERSON	
QA APPR: LINDSAY	
APPROVED: GILBERT	
SCALE 1:2	DATE 5/31/2002
SHEET 1 OF 1	

ASSY QTY	ASSY QTY	B/O	Part #	UNIT QTY	Description	Material	B/O INFORMATION OR SPECIFICATIONS
			C10-27-8	1	BUMPER PLATE	A36/1018/1020 HR	

WORK ORDER NON-CONFORMANCE / UPDATE



QA Closed: _____ Date: _____

Work Order update only

Work Order: _____		DISPOSITION		AGAINST DEPARTMENT/PROCESS						
Part No. _____		Rework ☐		Skid-tube ☐	Cross tube ☐	Water Jet ☐	Engineering ☐			
NCR No. _____		Scrap ☐		Machining ☐	Small Fab ☐	Prod. Eng. Coord. ☐	Quality ☐			
		Use-as-is ☐		Thermoforming ☐	Finishing ☐	Rec/Store/Packaging ☐	Other ☐			
		Suspected Unapproved ☐		Large Fab ☐	Composite ☐	Supplier ☐				
Date :		Step #:		QTY Effective :			MRB (QS1042) Approval			
Description Work Order Deviation				Disposition			Completed By			
							Lead hand / Supervisor Approval Verification			
							QC / QA Coordinator Approval			
Root Cause				FAULT CATEGORY						
Environment ☐	☐	No Re-verification	☐	Pressure/Forced	☐	Temperature/Cure	☐	Power Loss/Surge	☐	Positioned Wrong
Design ☐	☐	Operator	☐	Bending	☐	Set-up	☐	Folio/Program	☐	Outside Dimensions
Doc/Data ☐	☐	Offset/Setup	☐	Centre Not Concentric	☐	BOM/Route	☐	Grain	☐	Over/Under tolerance
Equip/Tooling ☐	☐	Supplier	☐	Cracks	☐	Broken/Damage/Defect	☐	Weld	☐	Part Incorrect
Handling/Pre ☐	☐	Training	☐	Crimp/Kink/Ripple/Wave	☐	Inspection Incomplete/Unqualified	☐	Wrong Stock Pulled	☐	Part Lost/Missing
Material ☐	☐	Use for Testing	☐	Cuffs	☐	Contamination	☐	Out of Sequence	☐	Part Moved
Internal Transport ☐	☐	Poor Information	☐	Crushing	☐	Countersink	☐	Off-set	☐	Drawing
Tribal Knowledge ☐	☐	Rushing	☐	Heat Treat	☐	Cut Too Short	☐	Mislabeled	☐	Finish
LOA ☐	☐	Product Improvement	☐	Wave/Twist in Tube	☐	Instructions Incomplete/Unclear	☐	Fit/Function	☐	Misread
Substation ☐	☐	Process Improvement	☐	Marks/Chatter	☐	Drill Holes	☐	Misaligned/off center	☐	Turning Sequence
Past Expiry Date ☐	☐	Manufacturing Process								
Misidentified ☐	☐	Past Due	OTHER :							